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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/063,094	03/19/2002	Barry Lee-Mean Yang	RD-27190-2	8181

7590 03/09/2004

GENERAL ELECTRIC COMPANY  
CRD PATENT DOCKET RM. 4A59  
P.O. BOX 8 BLDG. K-1  
SCHENECTADY, NY 12301

EXAMINER
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MEEKS, TIMOTHY HOWARD

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 03/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Advisory Action</b>	Application No. 10/063,094	Applicant(s) YANG ET AL.
	Examiner Timothy H. Meeks	Art Unit 1762

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 19 February 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on \_\_\_\_\_. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☒ The proposed amendment(s) will not be entered because:
- (a) ☒ they raise new issues that would require further consideration and/or search (see NOTE below);
  - (b) ☐ they raise the issue of new matter (see Note below);
  - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
  - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet.

3. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.
4. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☒ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

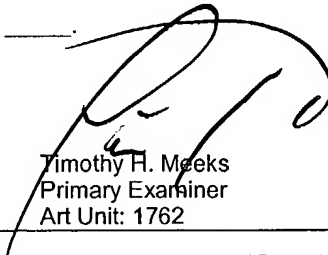
Claim(s) allowed: \_\_\_\_\_.

Claim(s) objected to: \_\_\_\_\_.

Claim(s) rejected: 24-35 and 37-40.

Claim(s) withdrawn from consideration: \_\_\_\_\_.

8. ☐ The drawing correction filed on \_\_\_\_\_ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_.
10. ☐ Other: \_\_\_\_\_

  
 Timothy H. Meeks  
 Primary Examiner  
 Art Unit: 1762

Continuation of 2. NOTE: The proposed limitations in claims 38 and 40 of "preferentially" heating and "when combined with heat from the thermal plasma plume" add limitations and change the scope of the claims from that at the time of final rejection. As such, these limitations if added would necessitate further search and consideration. It is noted that if applicants were to change the dependency of the claims as proposed with the exception of amending claim 39 to depend from claim 38 instead of claim 37 in a separate paper, those amendments would be entered upon filing an appeal brief and the rejection under 35 USC 112 made in the final office action would be withdrawn.

Continuation of 5. does NOT place the application in condition for allowance because: Applicants set forth the argument that no motivation is provided to combine Chan, which describes a PVD process with the EP reference, which describes a CVD process. The examiner maintains that there is ample motivation to combine the teachings of these references as described in the final rejection. As set forth therein, the EP reference clearly teaches a desire to coat a large area. The Chan reference describes that providing a plurality of coaxial plasma sources allows for coating a large area as opposed to a single plasma source. As applicants have pointed out, Chan's arc plasma sources are used in a PVD process whereas the expanding plasma of the EP reference is used to activate a CVD process. While it is agreed that the mechanisms for forming the coating differ in CVD versus PVD, one of ordinary skill in the art of vapor deposition would realize upon review of the cited references that the use of a plurality of coaxial plasma sources would provide the benefit of allowing coating of a larger area than use of a single plasma source. The plasma sources in each process provide energy for the coating process to occur and the area of deposition is clearly dependent upon the position of these plasma sources in relation to the substrate, among other factors. Applicants argue that Chan and the EP reference are directed to non-analogous art. As correctly stated by applicants on page 7 of the 02/19/04 response, "Analogous art is only art that is either in the field of technology of the claimed invention or deals with the same problem solved". In this instance, the cited references clearly deal with the same problem solved, that is coating a larger area on substrate. The solution proposed in Chan of using multiple coaxial plasma coating sources would have clearly been expected to solve the problem described in the EP reference by providing a plurality of multiple coaxial expanding thermal plasma coating sources. Applicants maintain the argument that placing the plasma generators in the vacuum chamber as shown in Chan would destroy the principle of operation of the expanding plasma shown in the EP reference. The examiner maintains the position set forth in the final rejection. Applicants argue that the parallel arrangement of plasma sources shown in Ackermann would fail to coat a larger area. As set forth in the final rejection, the EP reference also discloses a desire to provide a higher deposition rate. Ackermann discloses that arranging the plasma sources in parallel provides a higher deposition rate, as is established in the final rejection.